

REMARKS

The objection to Claims 1 and 40 under 35 U.S.C. § 132 as introducing new matter is respectfully traversed. The amendments made to the claims in the previous Amendment after Final are clearly supported by the specification. See page 4, lines 22-26, as an example. *Directly* introducing the fibers into the jet drier, as defined by applicants, means avoiding intermediate steps such as a pulp drying, handling of pulp reels, hammermilling, and so on. (See the definition at page 31, lines 4-8.) This language was intended to cover taking a pulp directly from the pulp mill without drying the pulp (that is, it is never-dried) and introducing it directly into the jet drier without the intermediate steps of conventional drying or hammermilling. It is admitted that applicants do teach permissive process steps in the broadest context of the disclosure. However, applicants are now limiting their claims to a preferred aspect of the invention that is clearly defined in the specification, i.e., introducing the pulp *directly* into the jet drier. Thus, it is submitted that applicants have not introduced new matter into the claims nor into the specification.

The rejection of Claims 1-28 and 40 under 35 U.S.C. § 112 is also respectfully traversed. The Examiner objects to the second subparagraph of the original claim following the first subparagraph. However, no order for those steps is intended by their placement in the claim. For example, see the third paragraph where the adverb "thereafter" is introduced in the drying step to assure that the recited drying step takes place after the first two steps of the claim. However, to further clarify the claim, applicants have introduced the treating step as the first subparagraph and the introduction step as a second subparagraph. This arrangement, however, does not preclude applicants' claim from broadly covering the treatment of the never-dried fiber before, during, or after introducing it into the jet drier.

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The rejection of Claims 1-28 and 40 under 35 U.S.C. § 112, second paragraph, is also respectfully traversed. The Examiner indicates that the word "directly" renders the claim indefinite. However, it is submitted that the claim word "directly" is clearly defined in the specification, as set forth above, to indicate that the *never-dried* pulp is taken from the pulp mill and without drying, hammermilling, or other intermediate steps is introduced into the jet drier. The Examiner is correct that other steps could permissibly be formed. However, applicants' claims as now written would not encompass that possibility.

The Examiner has also objected to the phrase "the knot," "the accepts," and "the fines" in Claims 5 and 17-25. The dried fiber removed from the jet drier inherently has mechanical characteristics that include knots, accepts, and fines, as defined in the specification. It is believed that the use of these terms does not require setting forth antecedent basis in the independent claim, for example, because of the inherent nature of the fibers taken from the jet drier. It is, therefore, believed that the Examiner's rejection is in error. However, if the Examiner wishes to continue the rejection, applicants would be willing to introduce a limitation such as "said dried pulp having knots, accepts, and fines" into Claims 1 and 40.

Finally, the rejection of Claims 1-28 under 35 U.S.C. § 103(a) as being unpatentable over Herron et al., Westland et al., Graef et al., Wu et al., and Naieni et al. in view of Marsh and further evidenced by Crowther et al., is respectfully traversed.

The Examiner is respectfully requested to note that Claims 1 and 40, the only independent claims in the application, are directed to a process for producing crosslinked singulated pulp fibers comprising the steps of (a) treating *never-dried* wet pulp received *directly from a pulp mill* with a crosslinker, (b) introducing the *never-dried* wet pulp *directly from a pulp mill* and air into a jet drier, (c) thereafter drying *and crosslinking* the pulp in the jet drier to form singulated pulp fibers, and (d) removing the pulp from the jet drier and separating the dried pulp

fibers from the air in said jet drier. Specifically, the process is directed to *never-dried* wet pulp that is treated and introduced into the jet drier *directly from a pulp mill*, and as such has not been subjected to mechanical defibering or an intermediate drying step.

The Examiner will note that four of the primary references, Westland et al., Graef et al., Wu et al., and Naieni et al., operate on pulp that has been *dried* before any crosslinking occurs. The pulp is then reconstituted and a crosslinker applied. Thereafter, the pulp is defiberized with a mechanical device and is introduced into a flash drier or curing oven. Thus, all of these primary references require previously dried pulp and mechanical defibering before crosslinking to achieve their stated results. Applicants achieve their results with a *never-dried* wet pulp that is introduced into a jet drier *directly from a pulp mill*, where it is crosslinked to form a pulp having low knots, fines and accepts. The Examiner admits that there is no disclosure of using never dried pulp directly from the pulp mill.

In addition, the Examiner has newly cited Herron et al., U.S. Patent No. 5,183,707, and relies on it as a primary reference as well. The Examiner asserts that one of ordinary skill in the art would have a reasonable expectation of success if never-dried pulps were used as a starting source of the fibers. There is nothing in Herron et al. or the other primary references to support this proposition. Herron et al. teaches that never-dried fibers may be used in the Herron et al. system. In Herron et al., however, the fibers are flash dried and defiberated before being crosslinked. See Col. 11, line 43, through Col. 12, line 2. The crosslinking of the flash dried fibers is then carried out at a suitable temperature for an effective period of time to cause the crosslinking agent to cure. See Col. 12, lines 21-24. Clearly, there is no teaching in Herron et al. of treating *never-dried* cellulose fibers with a crosslinker and introducing the treated *never-dried* fibers directly into a jet drier to produce singulated fibers having a low knot content. Thus, in

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reality, the Herron et al. teaching is no different than that of the other primary references. All dry and defiberize the pulp before cross-linking.

There is no suggestion in any of the primary or secondary references that applicants' results can be achieved without mechanical defibering on a never-dried pulp. Because the principal references do not disclose or suggest the invention now defined in applicants' Claim 1, the secondary references add nothing. The references cited by the Examiner fall short of setting forth a *prima facie* case of nonobviousness. Thus, there is no disclosure in any of the references cited by the Examiner, nor any suggestion to one of ordinary skill, that applicants' invention, as defined in Claims 1 and 40 and the claims depending therefrom, would be obvious to one of ordinary skill.

The Examiner is therefore respectfully requested to reexamine the application, to reconsider and to withdraw the objection under 35 U.S.C. § 132 and the rejections under 35 U.S.C. §§ 112 and 103, and to promptly allow the case and pass it to issue.

If the Examiner has any further thoughts or comments, he is invited to call applicants' attorney at the number listed below.

Respectfully submitted,

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